Indicators Discussion:
Major points for the Working Group

- Appropriate uses of indices indicators of ecosystem status relative to important ecosystem "principles" (e.g., resilience, diversity, trophic interaction). If indices used to set goals, need causal mechanisms & models to assess appropriate application of them. Predictions using some indicators may be directional rather than incremental. Relationships between indicators and outcomes people care about.

- Use of Aggregate indices may down-weight indicators of important components need to resolve if indicators are sensitive to fishing effects vs. influence of non-fishing effects on indicators (e.g., fishing vs. climate). Synthesis vs. aggregation.

- Human-centric vs. ecosystem-centric attributes. Need to link metrics to benefits vs. costs of achieving them. Risk assessments difficult with respect to ecosystem attributes. Irreversible points in systems and metrics of them. Valuing inter-generational equity and trust resources. Leading vs. trailing indicators.

Indicators Discussion: (continued)
Major points for the Working Group

- Use of indicators when data and models become more available and sophisticated. Properties of ecosystem useful for metrics. Unbiased selection of metrics that describe function (with respect to management). Bias related to thresholds. Transparent, inclusive selection of Indicators. More difficult to define what we like than what we want to avoid. NSGs may provide a state space of attributes important to society

- Tie monitoring, modeling and experimental approaches (strong contrasts). Changes in effort, MPAs etc. Steps necessary to identify indicators. Characteristics of indicators. Indicators mean different things to various user groups. Open process to select and use. Indicators are imbedded in management processes to implement.